

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Project No. Site 995

Waimanalo Gulch Landfill

Lot #: D8G140189

Stormwater

Justin Lottig

Waste Management, Inc.
Waimanalo Gulch Landfill
92-960 Farrington Highway
Kapolei, HI 96707

Cc: John Fong, Earth Tech

TestAmerica Laboratories, Inc.



Betsy Sara
Project Manager

August 4, 2008

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Case Narrative

Enclosed is the report for one sample received at TestAmerica Denver laboratory on July 14, 2008. The results included in this report have been reviewed for compliance with TestAmerica Denver's Laboratory Quality Manual. The results relate only to the samples in this report and meet all requirements of NELAC and any exceptions are noted below.

This report may include data with reporting limits (RLs) less than TestAmerica Denver's standard reporting limits. These data and reporting limits are being used specifically to meet the needs of this project. Note that, data are not customarily reported to these levels without qualifiers, because they are inherently less reliable and potentially less defensible than the latest industry standards require. Please contact TestAmerica Denver for more details.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interferences or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Denver utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

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Quality Control Summary for Lot D8G140189

Sample Receiving

The cooler temperature upon receipt at the Denver laboratory was 4.4°C.

All sample bottles were received in acceptable condition.

The tests requested on the chain-of-custody did not match those listed in the corresponding protocol for this site. The client was notified and instructed the laboratory to perform all of the tests listed in the protocol, with the exception of BOD.

Holding Times

All holding times were met.

Method Blanks

Nitrate-Nitrite Method 353.2 and Total Phosphorus Method 365.3 were detected in the Method Blanks below the project established reporting limits. No corrective action is taken for any values in Method Blanks that are below the requested reporting limits. The Method Blank data are included at the end of this report.

All other Method Blanks were within established control limits.

Laboratory Control Samples (LCS)

The Method 625 LCS exhibited recoveries below the lower control limit for several compounds. The sample WGSL-DB01W was re-extracted past the 7-day holding time and reanalyzed. Upon reanalysis, all QC samples were within control limits except the LCS which exhibited a high recovery of Benzo(k)fluoranthene, however the sample WGSL-DB01W was non-detect for all Method 625 target analytes. The results were the same for the original analysis and re-extraction analysis. Only the original results that were performed within the holding time are reported in this submission.

All other Laboratory Control Samples were within established control limits.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

The method required MS/MSD could not be performed for Method 625 due to insufficient sample volume.

The percent recoveries and/or the relative percent difference of the MS/MSD performed on a sample from another client were not calculated for Total Iron during Method 200.7 analysis because the sample concentration was greater than four times the spike amount.

The Matrix Spike and Matrix Spike Duplicate analyses performed on samples from other clients exhibited MS and/or MSD recoveries outside control limits for Ammonia Method 350.1, Chemical Oxygen Demand Method 410.4 and Total Phosphorus Method 365.3. Because the corresponding Laboratory Control Samples and the Method Blank samples were within control limits, these anomalies may be due to matrix interference and no corrective action was taken.

The method required MS/MSD could not be performed for Method 1664A HEM due to insufficient sample volume, however, a LCS/LCSD pair was analyzed to demonstrate method precision and accuracy.

All other MS and MSD samples were within established control limits.

General Comments

Per the client's request, TSS, Total Zinc and Total Iron were reanalyzed. The reanalysis results confirmed the original results and therefore only the original results were reported in this submission.

EXECUTIVE SUMMARY - Detection Highlights

D8G140189

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
WGSL-DB01W 07/09/08 13:05 001				
Iron	310000	100	ug/L	MCAWW 200.7
Zinc	810	20	ug/L	MCAWW 200.7
Total Kjeldahl Nitrogen	3.8	0.50	mg/L	MCAWW 351.2
Nitrate-Nitrite	4.8 J	0.10	mg/L	MCAWW 353.2
Field Temperature	25.4	--	deg C	MCAWW 170.1
Field pH	6.48	0.1	No Units	MCAWW 150.1
Total phosphorus	0.010 B,J	0.050	mg/L	MCAWW 365.3
Total Suspended Solids	4200 Q	40	mg/L	SM18 2540 D
HEM (Oil and Grease)	2.8 B	5.0	mg/L	CFR136A 1664A HEM
Ammonia as N	0.41	0.10	mg/L	MCAWW 350.1
Chemical Oxygen Demand (COD)	47	20	mg/L	MCAWW 410.4

METHODS SUMMARY

D8G140189

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Base/Neutrals and Acids	CFR136A 625	CFR136A 625
Chemical Oxygen Demand	MCAWW 410.4	MCAWW 410.4
Field pH	MCAWW 150.1	MCAWW 150.1
Field Temperature	MCAWW 170.1	MCAWW 170.1
Inductively Coupled Plasma (ICP) Metals	MCAWW 200.7	MCAWW 200.7
N-Hexane Extractable Material (1664A)	CFR136A 1664A H	CFR136A 1664
Nitrate-Nitrite	MCAWW 353.2	MCAWW 353.2
Nitrogen, Ammonia	MCAWW 350.1	MCAWW 350.1
Total phosphorus	MCAWW 365.3	MCAWW 365.3
Total Kjeldahl Nitrogen	MCAWW 351.2	MCAWW 351.2
Total Suspended Solids	SM18 2540 D	SM18 2540 D

References:

- CFR136A "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
- MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.
- SM18 "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992.

METHOD / ANALYST SUMMARY

D8G140189

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
CFR136A 1664A HEM	Sarah Lambert	005039
CFR136A 625	Daniel Kiekel	011370
MCAWW 150.1	Outside Lab	OUT
MCAWW 170.1	Outside Lab	OUT
MCAWW 200.7	David Wells	005099
MCAWW 200.7	David Wells	5099
MCAWW 350.1	Kevin Bloom	006134
MCAWW 351.2	Brett Wolff	009878
MCAWW 353.2	Kevin Bloom	006134
MCAWW 365.3	Bryan Gilbert	007254
MCAWW 410.4	Sarah Lambert	005039
SM18 2540 D	Elizabeth Fisher	009292

References:

- CFR136A "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
- MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.
- SM18 "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992.

SAMPLE SUMMARY

D8G140189

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
KRG8L	001	WGSL-DB01W	07/09/08	13:05

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Waste Management, Inc.

Client Sample ID: WGSL-DB01W

GC/MS Semivolatiles

Lot-Sample #....: D8G140189-001 Work Order #....: KRG8L1AJ Matrix.....: WATER
Date Sampled....: 07/09/08 13:05 Date Received...: 07/12/08
Prep Date.....: 07/15/08 Analysis Date...: 07/22/08
Prep Batch #....: 8197205 Analysis Time...: 05:54
Dilution Factor: 1

Method.....: CFR136A 625

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
Alpha-Terpineol	ND	10	ug/L	2.0
Benzoic acid	ND	50	ug/L	10
Phenol	ND	10	ug/L	2.0
4-Methylphenol	ND	10	ug/L	0.25

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	80	(49 - 120)
Phenol-d5	81	(54 - 120)
Nitrobenzene-d5	79	(56 - 120)
2-Fluorobiphenyl	62	(52 - 120)
2,4,6-Tribromophenol	81	(56 - 120)
Terphenyl-d14	71	(50 - 120)

Waste Management, Inc.

Client Sample ID: WGSL-DB01W

TOTAL Metals

Lot-Sample #....: D8G140189-001

Matrix.....: WATER

Date Sampled...: 07/09/08 13:05 Date Received..: 07/12/08

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK	ANALYSIS DATE	ORDER #
		LIMIT	UNITS						
Prep Batch #....: 8197445									
Iron	310000	100	ug/L		MCAWW 200.7	07/16-07/17/08	KRG8L1AK		
		Dilution Factor: 1			Analysis Time...: 13:39	MDL.....:	22		
Zinc	810	20	ug/L		MCAWW 200.7	07/16-07/17/08	KRG8L1AL		
		Dilution Factor: 1			Analysis Time...: 13:39	MDL.....:	4.5		

Waste Management, Inc.

Client Sample ID: WGSL-DB01W

General Chemistry

Lot-Sample #....: D8G140189-001 **Work Order #....:** KRG8L **Matrix.....:** WATER
Date Sampled....: 07/09/08 13:05 **Date Received...:** 07/12/08

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-	PREP
					ANALYSIS DATE	
Ammonia as N	0.41	0.10	mg/L	MCAWW 350.1	07/21/08	8203407
		Dilution Factor: 1		Analysis Time...: 09:00	MDL.....:	0.022
Chemical Oxygen Demand (COD)	47	20	mg/L	MCAWW 410.4	07/16/08	8198494
		Dilution Factor: 1		Analysis Time...: 08:00	MDL.....:	4.1
Field pH	6.48	0.1	No Units	MCAWW 150.1	07/09/08	8198089
		Dilution Factor: 1		Analysis Time...: 00:00	MDL.....:	
Field Temperature	25.4	--	deg C	MCAWW 170.1	07/09/08	8198090
		Dilution Factor: 1		Analysis Time...: 00:00	MDL.....:	
HEM (Oil and Grease)	2.8 B	5.0	mg/L	CFR136A 1664A HEM	07/16/08	8198490
		Dilution Factor: 1		Analysis Time...: 10:00	MDL.....:	1.4
Nitrate-Nitrite	4.8 J	0.10	mg/L	MCAWW 353.2	07/21/08	8203414
		Dilution Factor: 1		Analysis Time...: 09:00	MDL.....:	0.019
Total phosphorus	0.010 B,J	0.050	mg/L	MCAWW 365.3	07/16/08	8198404
		Dilution Factor: 1		Analysis Time...: 08:30	MDL.....:	0.0050
Total Kjeldahl Nitrogen	3.8	0.50	mg/L	MCAWW 351.2	07/16-07/17/08	8199402
		Dilution Factor: 1		Analysis Time...: 10:00	MDL.....:	0.25
Total Suspended Solids	4200 Q	40	mg/L	SM18 2540 D	07/15/08	8198094
		Dilution Factor: 10		Analysis Time...: 11:50	MDL.....:	11

NOTE(S) :

RL Reporting Limit

B Estimated result. Result is less than RL.

J Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Q Elevated reporting limit. The reporting limit is elevated due to high analyte levels.

QC DATA ASSOCIATION SUMMARY

D8G140189

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	MCAWW 200.7		8197445	8197268
	WATER	MCAWW 351.2		8199402	8199303
	WATER	MCAWW 353.2		8203414	8205073
	WATER	CFR136A 625		8197205	
	WATER	MCAWW 170.1		8198090	
	WATER	MCAWW 150.1		8198089	
	WATER	MCAWW 365.3		8198404	8199064
	WATER	SM18 2540 D		8198094	8198142
	WATER	CFR136A 1664A HEM		8198490	
	WATER	MCAWW 350.1		8203407	8203277
	WATER	MCAWW 410.4		8198494	8199245

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #....: D8G140189
MB Lot-Sample #: D8G150000-205
Analysis Date...: 07/21/08
Dilution Factor: 1

Work Order #....: KRHX01AA
Prep Date.....: 07/15/08
Prep Batch #....: 8197205

Matrix.....: WATER
Analysis Time..: 10:44

PARAMETER	REPORTING			
	RESULT	LIMIT	UNITS	METHOD
Benzoic acid	ND	50	ug/L	CFR136A 625
4-Methylphenol	ND	10	ug/L	CFR136A 625
Phenol	ND	10	ug/L	CFR136A 625
Alpha-Terpineol	ND	10	ug/L	CFR136A 625

SURROGATE	PERCENT	RECOVERY
		RECOVERY
2-Fluorophenol	70	(49 - 120)
Phenol-d5	74	(54 - 120)
Nitrobenzene-d5	71	(56 - 120)
2-Fluorobiphenyl	60	(52 - 120)
2,4,6-Tribromophenol	71	(56 - 120)
Terphenyl-d14	79	(50 - 120)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #....: D8G140189 **Work Order #....:** KRHX01AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: D8G150000-205 KRHX01AD-LCSD
Prep Date.....: 07/15/08 **Analysis Date...:** 07/21/08
Prep Batch #....: 8197205 **Analysis Time..:** 11:05
Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>LIMITS</u>	<u>METHOD</u>
4-Methylphenol	82	(58 - 120)			CFR136A 625
	77	(58 - 120)	6.4	(0-39)	CFR136A 625
Phenol	83	(58 - 112)			CFR136A 625
	76	(58 - 112)	8.3	(0-30)	CFR136A 625
2-Chlorophenol	79	(57 - 120)			CFR136A 625
	74	(57 - 120)	7.7	(0-30)	CFR136A 625
1,3-Dichlorobenzene	43 a	(45 - 120)			CFR136A 625
	35 a	(45 - 120)	21	(0-47)	CFR136A 625
1,4-Dichlorobenzene	44 a	(45 - 120)			CFR136A 625
	36 a	(45 - 120)	21	(0-49)	CFR136A 625
1,2-Dichlorobenzene	48	(48 - 120)			CFR136A 625
	39 a	(48 - 120)	22	(0-42)	CFR136A 625
bis(2-Chloroisopropyl) ether	64	(57 - 120)			CFR136A 625
	57	(57 - 120)	13	(0-30)	CFR136A 625
N-Nitrosodi-n-propyl-amine	83	(58 - 120)			CFR136A 625
	79	(58 - 120)	5.1	(0-30)	CFR136A 625
Hexachloroethane	39 a	(43 - 113)			CFR136A 625
	32 a	(43 - 113)	20	(0-52)	CFR136A 625
Nitrobenzene	81	(58 - 120)			CFR136A 625
	74	(58 - 120)	9.0	(0-30)	CFR136A 625
Isophorone	81	(54 - 120)			CFR136A 625
	73	(54 - 120)	10	(0-30)	CFR136A 625
2-Nitrophenol	83	(59 - 120)			CFR136A 625
	75	(59 - 120)	10	(0-30)	CFR136A 625
2,4-Dimethylphenol	63	(44 - 119)			CFR136A 625
	60	(44 - 119)	5.9	(0-35)	CFR136A 625
bis(2-Chloroethoxy) methane	80	(56 - 120)			CFR136A 625
	74	(56 - 120)	7.9	(0-30)	CFR136A 625
2,4-Dichlorophenol	84	(60 - 120)			CFR136A 625
	77	(60 - 120)	8.9	(0-30)	CFR136A 625
1,2,4-Trichloro-benzene	52	(50 - 120)			CFR136A 625
	38 a	(50 - 120)	31	(0-35)	CFR136A 625

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

PARAMETER	PERCENT	RECOVERY	RPD	LIMITS	METHOD
	RECOVERY	LIMITS	RPD	LIMITS	
Naphthalene	61	(52 - 120)			CFR136A 625
	48 a	(52 - 120)	25	(0-30)	CFR136A 625
Hexachlorobutadiene	45 a	(49 - 116)			CFR136A 625
	32 a	(49 - 116)	32	(0-41)	CFR136A 625
4-Chloro-3-methylphenol	87	(63 - 120)			CFR136A 625
	79	(63 - 120)	9.0	(0-30)	CFR136A 625
2,4,6-Trichlorophenol	85	(60 - 120)			CFR136A 625
	80	(60 - 120)	5.8	(0-30)	CFR136A 625
2-Chloronaphthalene	75	(60 - 118)			CFR136A 625
	64	(60 - 118)	16	(0-30)	CFR136A 625
Dimethyl phthalate	82	(61 - 112)			CFR136A 625
	78	(61 - 112)	5.8	(0-30)	CFR136A 625
Acenaphthylene	81	(58 - 120)			CFR136A 625
	72	(58 - 120)	12	(0-30)	CFR136A 625
Acenaphthene	77	(58 - 120)			CFR136A 625
	70	(58 - 120)	9.0	(0-30)	CFR136A 625
2,4-Dinitrophenol	74	(36 - 121)			CFR136A 625
	70	(36 - 121)	5.4	(0-61)	CFR136A 625
4-Nitrophenol	88	(53 - 120)			CFR136A 625
	81	(53 - 120)	8.3	(0-42)	CFR136A 625
2,4-Dinitrotoluene	86	(60 - 120)			CFR136A 625
	80	(60 - 120)	6.7	(0-35)	CFR136A 625
Diethyl phthalate	83	(61 - 114)			CFR136A 625
	78	(61 - 114)	5.7	(0-30)	CFR136A 625
4-Chlorophenyl phenyl ether	80	(60 - 120)			CFR136A 625
	75	(60 - 120)	7.0	(0-30)	CFR136A 625
Fluorene	79	(60 - 120)			CFR136A 625
	73	(60 - 120)	7.7	(0-30)	CFR136A 625
4-Bromophenyl phenyl ether	85	(61 - 120)			CFR136A 625
	77	(61 - 120)	9.2	(0-34)	CFR136A 625
Hexachlorobenzene	84	(62 - 120)			CFR136A 625
	79	(62 - 120)	6.3	(0-30)	CFR136A 625
Pentachlorophenol	85	(49 - 120)			CFR136A 625
	77	(49 - 120)	10	(0-30)	CFR136A 625
Phenanthrene	80	(63 - 120)			CFR136A 625
	76	(63 - 120)	6.1	(0-30)	CFR136A 625

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

PARAMETER	PERCENT	RECOVERY	RPD	LIMITS	METHOD
	RECOVERY	LIMITS	RPD	LIMITS	
Anthracene	81	(62 - 120)			CFR136A 625
	76	(62 - 120)	5.9	(0-30)	CFR136A 625
Di-n-butyl phthalate	88	(62 - 118)			CFR136A 625
	81	(62 - 118)	9.0	(0-30)	CFR136A 625
Fluoranthene	87	(59 - 120)			CFR136A 625
	80	(59 - 120)	8.6	(0-30)	CFR136A 625
Pyrene	81	(60 - 115)			CFR136A 625
	76	(60 - 115)	5.5	(0-30)	CFR136A 625
Butyl benzyl phthalate	89	(60 - 120)			CFR136A 625
	85	(60 - 120)	4.2	(0-30)	CFR136A 625
3,3'-Dichlorobenzidine	73	(34 - 120)			CFR136A 625
	69	(34 - 120)	5.9	(0-50)	CFR136A 625
bis(2-Ethylhexyl) phthalate	88	(58 - 120)			CFR136A 625
	84	(58 - 120)	5.3	(0-30)	CFR136A 625
Chrysene	80	(60 - 120)			CFR136A 625
	76	(60 - 120)	5.0	(0-30)	CFR136A 625
Di-n-octyl phthalate	89	(59 - 120)			CFR136A 625
	83	(59 - 120)	6.6	(0-30)	CFR136A 625
Benzo(b)fluoranthene	86	(55 - 120)			CFR136A 625
	73	(55 - 120)	16	(0-90)	CFR136A 625
Benzo(k)fluoranthene	79	(57 - 120)			CFR136A 625
	82	(57 - 120)	4.9	(0-50)	CFR136A 625
Indeno(1,2,3-cd)pyrene	81	(56 - 120)			CFR136A 625
	76	(56 - 120)	6.4	(0-73)	CFR136A 625
Dibenz(a,h)anthracene	83	(58 - 120)			CFR136A 625
	78	(58 - 120)	6.3	(0-78)	CFR136A 625
Benzo(ghi)perylene	82	(52 - 120)			CFR136A 625
	77	(52 - 120)	6.2	(0-64)	CFR136A 625
4,6-Dinitro-2-methylphenol	80	(41 - 120)			CFR136A 625
	76	(41 - 120)	4.8	(0-55)	CFR136A 625
Benzidine	66	(10 - 218)			CFR136A 625
	60	(10 - 218)	8.6	(0-50)	CFR136A 625
Benzo(a)pyrene	78	(58 - 120)			CFR136A 625
	73	(58 - 120)	6.5	(0-73)	CFR136A 625
Hexachlorocyclopenta-diene	25	(10 - 120)			CFR136A 625
	17	(10 - 120)	39	(0-82)	CFR136A 625

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

PARAMETER	PERCENT	RECOVERY	RPD	RPD LIMITS	METHOD
	RECOVERY	LIMITS			
N-Nitrosodimethylamine	76	(52 - 120)			CFR136A 625
	69	(52 - 120)	9.7	(0-30)	CFR136A 625
N-Nitrosodiphenylamine	70	(10 - 203)			CFR136A 625
	65	(10 - 203)	8.0	(0-50)	CFR136A 625
2-Methyl-4,6-dinitro-phenol	80	(41 - 120)			CFR136A 625
	76	(41 - 120)	4.8	(0-55)	CFR136A 625
2-Methylphenol	81	(56 - 120)			CFR136A 625
	76	(56 - 120)	6.5	(0-35)	CFR136A 625
n-Decane	33	(28 - 120)			CFR136A 625
	28	(28 - 120)	18	(0-61)	CFR136A 625
2-Methylnaphthalene	68	(57 - 120)			CFR136A 625
	54 a	(57 - 120)	23	(0-30)	CFR136A 625
2,6-Dinitrotoluene	80	(61 - 120)			CFR136A 625
	75	(61 - 120)	5.5	(0-30)	CFR136A 625
Benzo(a)anthracene	80	(60 - 120)			CFR136A 625
	75	(60 - 120)	6.1	(0-30)	CFR136A 625
bis(2-Chloroethyl)-ether	80	(55 - 120)			CFR136A 625
	74	(55 - 120)	8.0	(0-30)	CFR136A 625

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorophenol	80	(53 - 120)
	71	(53 - 120)
Phenol-d5	82	(57 - 120)
	76	(57 - 120)
Nitrobenzene-d5	81	(59 - 120)
	75	(59 - 120)
2-Fluorobiphenyl	69	(49 - 120)
	60	(49 - 120)
2,4,6-Tribromophenol	88	(50 - 120)
	84	(50 - 120)
Terphenyl-d14	86	(63 - 120)
	80	(63 - 120)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #....: D8G140189 Work Order #....: KRHX01AC-LCS Matrix.....: WATER
 LCS Lot-Sample#: D8G150000-205 KRHX01AD-LCSD
 Prep Date.....: 07/15/08 Analysis Date...: 07/21/08
 Prep Batch #....: 8197205 Analysis Time...: 11:05
 Dilution Factor: 1

PARAMETER	SPIKE	MEASURED	PERCENT	RPD	METHOD
	AMOUNT	AMOUNT	UNITS		
4-Methylphenol	100	81.8	ug/L	82	CFR136A 625
	100	76.8	ug/L	77	CFR136A 625
Phenol	100	83.1	ug/L	83	CFR136A 625
	100	76.5	ug/L	76	CFR136A 625
2-Chlorophenol	100	79.4	ug/L	79	CFR136A 625
	100	73.6	ug/L	74	CFR136A 625
1,3-Dichlorobenzene	100	43.5 a	ug/L	43	CFR136A 625
	100	35.2 a	ug/L	35	CFR136A 625
1,4-Dichlorobenzene	100	44.3 a	ug/L	44	CFR136A 625
	100	36.0 a	ug/L	36	CFR136A 625
1,2-Dichlorobenzene	100	48.2	ug/L	48	CFR136A 625
	100	38.7 a	ug/L	39	CFR136A 625
bis(2-Chloroisopropyl) ether	100	64.3	ug/L	64	CFR136A 625
	100	56.7	ug/L	57	CFR136A 625
N-Nitrosodi-n-propyl-amine	100	82.8	ug/L	83	CFR136A 625
	100	78.7	ug/L	79	CFR136A 625
Hexachloroethane	100	38.6 a	ug/L	39	CFR136A 625
	100	31.5 a	ug/L	32	CFR136A 625
Nitrobenzene	100	80.5	ug/L	81	CFR136A 625
	100	73.6	ug/L	74	CFR136A 625
Isophorone	100	81.0	ug/L	81	CFR136A 625
	100	73.3	ug/L	73	CFR136A 625
2-Nitrophenol	100	83.3	ug/L	83	CFR136A 625
	100	75.2	ug/L	75	CFR136A 625
2,4-Dimethylphenol	100	63.2	ug/L	63	CFR136A 625
	100	59.5	ug/L	60	CFR136A 625
bis(2-Chloroethoxy) methane	100	80.5	ug/L	80	CFR136A 625
	100	74.3	ug/L	74	CFR136A 625
2,4-Dichlorophenol	100	84.4	ug/L	84	CFR136A 625
	100	77.2	ug/L	77	CFR136A 625
1,2,4-Trichloro-benzene	100	51.8	ug/L	52	CFR136A 625
	100	37.8 a	ug/L	38	CFR136A 625

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: D8G140189 Work Order #...: KRHX01AC-LCS Matrix.....: WATER
 LCS Lot-Sample#: D8G150000-205 KRHX01AD-LCSD

PARAMETER	SPIKE	MEASURED		PERCENT	RPD	METHOD
	AMOUNT	AMOUNT	UNITS	RECOVERY		
Naphthalene	100	61.5	ug/L	61		CFR136A 625
	100	48.0 a	ug/L	48	25	CFR136A 625
Hexachlorobutadiene	100	44.5 a	ug/L	45		CFR136A 625
	100	32.4 a	ug/L	32	32	CFR136A 625
4-Chloro-3-methylphenol	100	86.7	ug/L	87		CFR136A 625
	100	79.3	ug/L	79	9.0	CFR136A 625
2,4,6-Trichlorophenol	100	84.6	ug/L	85		CFR136A 625
	100	79.8	ug/L	80	5.8	CFR136A 625
2-Chloronaphthalene	100	75.0	ug/L	75		CFR136A 625
	100	64.2	ug/L	64	16	CFR136A 625
Dimethyl phthalate	100	82.2	ug/L	82		CFR136A 625
	100	77.6	ug/L	78	5.8	CFR136A 625
Acenaphthylene	100	80.9	ug/L	81		CFR136A 625
	100	71.7	ug/L	72	12	CFR136A 625
Acenaphthene	100	76.6	ug/L	77		CFR136A 625
	100	70.0	ug/L	70	9.0	CFR136A 625
2,4-Dinitrophenol	100	74.4	ug/L	74		CFR136A 625
	100	70.5	ug/L	70	5.4	CFR136A 625
4-Nitrophenol	100	87.5	ug/L	88		CFR136A 625
	100	80.5	ug/L	81	8.3	CFR136A 625
2,4-Dinitrotoluene	100	85.9	ug/L	86		CFR136A 625
	100	80.3	ug/L	80	6.7	CFR136A 625
Diethyl phthalate	100	82.7	ug/L	83		CFR136A 625
	100	78.1	ug/L	78	5.7	CFR136A 625
4-Chlorophenyl phenyl ether	100	80.3	ug/L	80		CFR136A 625
	100	74.9	ug/L	75	7.0	CFR136A 625
Fluorene	100	79.2	ug/L	79		CFR136A 625
	100	73.3	ug/L	73	7.7	CFR136A 625
4-Bromophenyl phenyl ether	100	84.6	ug/L	85		CFR136A 625
	100	77.1	ug/L	77	9.2	CFR136A 625
Hexachlorobenzene	100	83.9	ug/L	84		CFR136A 625
	100	78.8	ug/L	79	6.3	CFR136A 625
Pentachlorophenol	100	84.9	ug/L	85		CFR136A 625
	100	76.5	ug/L	77	10	CFR136A 625
Phenanthrene	100	80.5	ug/L	80		CFR136A 625
	100	75.7	ug/L	76	6.1	CFR136A 625

(Continued on next page)

LABORATORY CONTROL: SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #....: D8G140189 **Work Order #....:** KRHX01AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: D8G150000-205 **KRHX01AD-LCSD**

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Anthracene	100	80.8	ug/L	81		CFR136A 625
	100	76.2	ug/L	76	5.9	CFR136A 625
Di-n-butyl phthalate	100	88.3	ug/L	88		CFR136A 625
	100	80.7	ug/L	81	9.0	CFR136A 625
Fluoranthene	100	86.9	ug/L	87		CFR136A 625
	100	79.7	ug/L	80	8.6	CFR136A 625
Pyrene	100	80.8	ug/L	81		CFR136A 625
	100	76.5	ug/L	76	5.5	CFR136A 625
Butyl benzyl phthalate	100	88.9	ug/L	89		CFR136A 625
	100	85.2	ug/L	85	4.2	CFR136A 625
3,3'-Dichlorobenzidine	100	72.8	ug/L	73		CFR136A 625
	100	68.6	ug/L	69	5.9	CFR136A 625
bis(2-Ethylhexyl) phthalate	100	88.5	ug/L	88		CFR136A 625
	100	83.9	ug/L	84	5.3	CFR136A 625
Chrysene	100	79.8	ug/L	80		CFR136A 625
	100	75.9	ug/L	76	5.0	CFR136A 625
Di-n-octyl phthalate	100	88.6	ug/L	89		CFR136A 625
	100	82.9	ug/L	83	6.6	CFR136A 625
Benzo(b)fluoranthene	100	85.8	ug/L	86		CFR136A 625
	100	72.9	ug/L	73	16	CFR136A 625
Benzo(k)fluoranthene	100	78.5	ug/L	79		CFR136A 625
	100	82.5	ug/L	82	4.9	CFR136A 625
Indeno(1,2,3-cd)pyrene	100	80.8	ug/L	81		CFR136A 625
	100	75.8	ug/L	76	6.4	CFR136A 625
Dibenz(a,h)anthracene	100	82.6	ug/L	83		CFR136A 625
	100	77.5	ug/L	78	6.3	CFR136A 625
Benzo(ghi)perylene	100	82.1	ug/L	82		CFR136A 625
	100	77.1	ug/L	77	6.2	CFR136A 625
4,6-Dinitro-2-methylphenol	100	80.1	ug/L	80		CFR136A 625
	100	76.3	ug/L	76	4.8	CFR136A 625
Benzidine	150	98.7	ug/L	66		CFR136A 625
	150	90.5	ug/L	60	8.6	CFR136A 625
Benzo(a)pyrene	100	77.5	ug/L	78		CFR136A 625
	100	72.7	ug/L	73	6.5	CFR136A 625
Hexachlorocyclopenta-diene	100	25.4	ug/L	25		CFR136A 625
	100	17.2	ug/L	17	39	CFR136A 625

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

PARAMETER	SPIKE	MEASURED		PERCENT		METHOD
	AMOUNT	AMOUNT	UNITS	RECOVERY	RPD	
N-Nitrosodimethylamine	100	76.0	ug/L	76		CFR136A 625
	100	69.0	ug/L	69	9.7	CFR136A 625
N-Nitrosodiphenylamine	100	70.3	ug/L	70		CFR136A 625
	100	64.9	ug/L	65	8.0	CFR136A 625
2-Methyl-4,6-dinitro-phenol	100	80.1	ug/L	80		CFR136A 625
	100	76.3	ug/L	76	4.8	CFR136A 625
2-Methylphenol	100	81.3	ug/L	81		CFR136A 625
	100	76.2	ug/L	76	6.5	CFR136A 625
n-Decane	100	33.2	ug/L	33		CFR136A 625
	100	27.8	ug/L	28	18	CFR136A 625
2-Methylnaphthalene	100	67.6	ug/L	68		CFR136A 625
	100	53.8 a	ug/L	54	23	CFR136A 625
2,6-Dinitrotoluene	100	79.7	ug/L	80		CFR136A 625
	100	75.4	ug/L	75	5.5	CFR136A 625
Benzo(a)anthracene	100	80.2	ug/L	80		CFR136A 625
	100	75.4	ug/L	75	6.1	CFR136A 625
bis(2-Chloroethyl)-ether	100	79.7	ug/L	80		CFR136A 625
	100	73.5	ug/L	74	8.0	CFR136A 625

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorophenol	80	(53 - 120)
	71	(53 - 120)
Phenol-d5	82	(57 - 120)
	76	(57 - 120)
Nitrobenzene-d5	81	(59 - 120)
	75	(59 - 120)
2-Fluorobiphenyl	69	(49 - 120)
	60	(49 - 120)
2, 4, 6-Tribromophenol	88	(50 - 120)
	84	(50 - 120)
Terphenyl-d14	86	(63 - 120)
	80	(63 - 120)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #....: D8G140189

Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	REPORTING			<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>	<u>ANALYSIS DATE</u>	<u>ORDER #</u>
MB Lot-Sample #: D8G150000-445 Prep Batch #....: 8197445									
Iron	ND	100	ug/L		MCAWW 200.7			07/16-07/17/08	KRJ711A6
		Dilution Factor: 1							
		Analysis Time..:	13:29						
Zinc	ND	20	ug/L		MCAWW 200.7			07/16-07/17/08	KRJ711AN
		Dilution Factor: 1							
		Analysis Time..:	13:29						

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #....: D8G140189

Matrix.....: WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#:	D8G150000-445	Prep Batch #....:	8197445		
Iron	103	(89 - 115)	MCAWW 200.7	07/16-07/17/08	KRJ711A7
		Dilution Factor: 1		Analysis Time...:	13:34
Zinc	99	(85 - 111)	MCAWW 200.7	07/16-07/17/08	KRJ711A4
		Dilution Factor: 1		Analysis Time...:	13:34

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #....: D8G140189

Matrix.....: WATER

PARAMETER	SPIKE	MEASURED	PERCNT		PREPARATION-	WORK	<u>ORDER #</u>
	AMOUNT	AMOUNT	UNITS	RECVRY	METHOD	ANALYSIS DATE	
LCS Lot-Sample#: D8G150000-445 Prep Batch #....: 8197445							
Iron	1000	1030	ug/L	103	MCAWW 200.7	07/16-07/17/08 KRJ711A7	
			Dilution Factor: 1		Analysis Time..: 13:34		
Zinc	500	493	ug/L	99	MCAWW 200.7	07/16-07/17/08 KRJ711A4	
			Dilution Factor: 1		Analysis Time..: 13:34		

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #....: D8G140189

Matrix.....: WATER

Date Sampled....: 07/14/08 15:15 **Date Received...:** 07/15/08

PARAMETER	PERCENT	RECOVERY	RPD	PREPARATION- ANALYSIS DATE	WORK ORDER #
	RECOVERY	LIMITS	RPD		
MS Lot-Sample #: D8G150168-001 Prep Batch #....: 8197445					
Iron	NC,MSB	(89 - 115)		MCAWW 200.7	07/16-07/17/08 KRH9D1DE
	NC,MSB	(89 - 115)	(0-20)	MCAWW 200.7	07/16-07/17/08 KRH9D1DF
			Dilution Factor: 1		
			Analysis Time...: 13:54		
Zinc	106	(85 - 111)		MCAWW 200.7	07/16-07/17/08 KRH9D1C8
	109	(85 - 111) 2.4	(0-20)	MCAWW 200.7	07/16-07/17/08 KRH9D1C9
			Dilution Factor: 1		
			Analysis Time...: 13:54		

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #....: D8G140189

Matrix.....: WATER

Date Sampled....: 07/14/08 15:15 **Date Received..:** 07/15/08

<u>PARAMETER</u>	<u>SAMPLE AMOUNT</u>	<u>SPIKE AMT</u>	<u>MEASRD AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
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MS Lot-Sample #: D8G150168-001 **Prep Batch #....:** 8197445

Iron

5800	1000	6520	ug/L		MCAWW	200.7	07/16-07/17/08 KRH9D1DE
		Qualifiers: NC,MSB					
5800	1000	6640	ug/L		MCAWW	200.7	07/16-07/17/08 KRH9D1DF
		Qualifiers: NC,MSB					
		Dilution Factor: 1					
		Analysis Time...: 13:54					

Zinc

68	500	600	ug/L	106	MCAWW	200.7	07/16-07/17/08 KRH9D1C8
68	500	615	ug/L	109	2.4	MCAWW 200.7	07/16-07/17/08 KRH9D1C9
		Dilution Factor: 1					
		Analysis Time...: 13:54					

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: D8G140189

Matrix.....: WATER

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
		LIMIT	UNITS				
Ammonia as N	ND	Work Order #: KRWVA1AA	MB	Lot-Sample #: D8G210000-407	MCAWW 350.1	07/21/08	8203407
		0.10	mg/L	Dilution Factor: 1			
				Analysis Time...: 09:00			
Chemical Oxygen Demand (COD)	ND	Work Order #: KRPD81AA	MB	Lot-Sample #: D8G160000-494	MCAWW 410.4	07/16/08	8198494
		20	mg/L	Dilution Factor: 1			
				Analysis Time...: 08:00			
HEM (Oil and Grease)	ND	Work Order #: KRMQF1AA	MB	Lot-Sample #: D8G160000-490	CFR136A 1664A HEM	07/16/08	8198490
		5.0	mg/L	Dilution Factor: 1			
				Analysis Time...: 10:00			
Nitrate-Nitrite	0.020 B	Work Order #: KR1G81AA	MB	Lot-Sample #: D8G210000-414	MCAWW 353.2	07/21/08	8203414
		0.10	mg/L	Dilution Factor: 1			
				Analysis Time...: 09:00			
Total phosphorus	0.0059 B	Work Order #: KRM1L1AA	MB	Lot-Sample #: D8G160000-404	MCAWW 365.3	07/16/08	8198404
		0.050	mg/L	Dilution Factor: 1			
				Analysis Time...: 13:50			
Total Kjeldahl Nitrogen	ND	Work Order #: KRPVK1AA	MB	Lot-Sample #: D8G170000-402	MCAWW 351.2	07/16-07/17/08	8199402
		0.50	mg/L	Dilution Factor: 1			
				Analysis Time...: 10:00			
Total Suspended Solids	ND	Work Order #: KRLD51AA	MB	Lot-Sample #: D8G160000-094	SM18 2540 D	07/15/08	8198094
		4.0	mg/L	Dilution Factor: 1			
				Analysis Time...: 11:50			

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Lot-Sample #...: D8G140189

Matrix.....: WATER

PARAMETER	PERCENT	RECOVERY	RPD	METHOD	PREPARATION-	PREP
	RECOVERY	LIMITS	RPD		ANALYSIS DATE	BATCH #
Ammonia as N		WO#:KRWWA1AC-LCS/KRWWA1AD-LCSD		LCS	Lot-Sample#: D8G210000-407	
	102	(90 - 110)		MCAWW 350.1	07/21/08	8203407
	101	(90 - 110) 1.1 (0-10)		MCAWW 350.1	07/21/08	8203407
		Dilution Factor: 1		Analysis Time...: 09:00		
Chemical Oxygen Demand (COD)		WO#:KRPD81AC-LCS/KRPD81AD-LCSD		LCS	Lot-Sample#: D8G160000-494	
	103	(80 - 115)		MCAWW 410.4	07/16/08	8198494
	103	(80 - 115) 0.0 (0-11)		MCAWW 410.4	07/16/08	8198494
		Dilution Factor: 1		Analysis Time...: 08:00		
HEM (Oil and Grease)		WO#:KRMQF1AC-LCS/KRMQF1AD-LCSD		LCS	Lot-Sample#: D8G160000-490	
	99	(82 - 103)		CFR136A 1664A HEM	07/16/08	8198490
	94	(82 - 103) 4.7 (0-22)		CFR136A 1664A HEM	07/16/08	8198490
		Dilution Factor: 1		Analysis Time...: 10:00		
Nitrate-Nitrite		WO#:KR1G81AC-LCS/KR1G81AD-LCSD		LCS	Lot-Sample#: D8G210000-414	
	109	(90 - 112)		MCAWW 353.2	07/21/08	8203414
	109	(90 - 112) 0.29 (0-10)		MCAWW 353.2	07/21/08	8203414
		Dilution Factor: 1		Analysis Time...: 09:00		
Total phosphorus		WO#:KRM1L1AC-LCS/KRM1L1AD-LCSD		LCS	Lot-Sample#: D8G160000-404	
	105	(90 - 110)		MCAWW 365.3	07/16/08	8198404
	106	(90 - 110) 0.66 (0-20)		MCAWW 365.3	07/16/08	8198404
		Dilution Factor: 1		Analysis Time...: 13:50		
Total Kjeldahl Nitrogen		WO#:KRPVK1AC-LCS/KRPVK1AD-LCSD		LCS	Lot-Sample#: D8G170000-402	
	91	(77 - 115)		MCAWW 351.2	07/16-07/17/08	8199402
	89	(77 - 115) 2.4 (0-25)		MCAWW 351.2	07/16-07/17/08	8199402
		Dilution Factor: 1		Analysis Time...: 10:00		
Total Suspended Solids		WO#:KRLD51AC-LCS/KRLD51AD-LCSD		LCS	Lot-Sample#: D8G160000-094	
	86	(86 - 114)		SM18 2540 D	07/15/08	8198094
	91	(86 - 114) 5.6 (0-20)		SM18 2540 D	07/15/08	8198094
		Dilution Factor: 1		Analysis Time...: 11:50		

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Lot-Sample #....: D8G140189

Matrix.....: WATER

PARAMETER	SPIKE	MEASURED	PERCNT			METHOD	PREPARATION-	PREP
	AMOUNT	AMOUNT	UNITS	RECVRY	RPD			
Ammonia as N			WO#: KRWWA1AC-LCS/KRWWA1AD-LCSD	LCS	Lot-Sample#:	D8G210000-407		
	4.00	4.08	mg/L	102		MCAWW 350.1	07/21/08	8203407
	4.00	4.03	mg/L	101	1.1	MCAWW 350.1	07/21/08	8203407
			Dilution Factor: 1			Analysis Time...: 09:00		
Chemical Oxygen Demand (COD)			WO#: KRPD81AC-LCS/KRPD81AD-LCSD	LCS	Lot-Sample#:	D8G160000-494		
	100	103	mg/L	103		MCAWW 410.4	07/16/08	8198494
	100	103	mg/L	103	0.0	MCAWW 410.4	07/16/08	8198494
			Dilution Factor: 1			Analysis Time...: 08:00		
HEM (Oil and Grease)			WO#: KRMQF1AC-LCS/KRMQF1AD-LCSD	LCS	Lot-Sample#:	D8G160000-490		
	40.0	39.5	mg/L	99		CFR136A 1664A HEM	07/16/08	8198490
	40.0	37.7	mg/L	94	4.7	CFR136A 1664A HEM	07/16/08	8198490
			Dilution Factor: 1			Analysis Time...: 10:00		
Nitrate-Nitrite			WO#: KR1G81AC-LCS/KR1G81AD-LCSD	LCS	Lot-Sample#:	D8G210000-414		
	4.00	4.36	mg/L	109		MCAWW 353.2	07/21/08	8203414
	4.00	4.37	mg/L	109	0.29	MCAWW 353.2	07/21/08	8203414
			Dilution Factor: 1			Analysis Time...: 09:00		
Total phosphorus			WO#: KRM1L1AC-LCS/KRM1L1AD-LCSD	LCS	Lot-Sample#:	D8G160000-404		
	0.500	0.527	mg/L	105		MCAWW 365.3	07/16/08	8198404
	0.500	0.531	mg/L	106	0.66	MCAWW 365.3	07/16/08	8198404
			Dilution Factor: 1			Analysis Time...: 13:50		
Total Kjeldahl Nitrogen			WO#: KRPVK1AC-LCS/KRPVK1AD-LCSD	LCS	Lot-Sample#:	D8G170000-402		
	3.00	2.73	mg/L	91		MCAWW 351.2	07/16-07/17/08	8199402
	3.00	2.67	mg/L	89	2.4	MCAWW 351.2	07/16-07/17/08	8199402
			Dilution Factor: 1			Analysis Time...: 10:00		
Total Suspended Solids			WO#: KRLD51AC-LCS/KRLD51AD-LCSD	LCS	Lot-Sample#:	D8G160000-094		
	100	86.0	mg/L	86		SM18 2540 D	07/15/08	8198094
	100	91.0	mg/L	91	5.6	SM18 2540 D	07/15/08	8198094
			Dilution Factor: 1			Analysis Time...: 11:50		

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #....: D8G140189

Matrix.....: WATER

Date Sampled....: 07/08/08 13:34 **Date Received..:** 07/08/08

PARAMETER	PERCENT	RECOVERY	RPD			METHOD	PREPARATION-	PREP
	RECOVERY	LIMITS	RPD	LIMITS			ANALYSIS DATE	BATCH #
Ammonia as N			WO#:	KRJW81AF-MS/KRJW81AG-MSD		MS	Lot-Sample #:	D8G150238-002
	83 N	(90 - 110)			MCAWW 350.1		07/21/08	8203407
	82 N	(90 - 110)	0.18	(0-10)	MCAWW 350.1		07/21/08	8203407
			Dilution Factor:	1				
			Analysis Time..:	09:00				
Chemical Oxygen Demand (COD)			WO#:	KRDTL1A2-MS/KRDTL1A3-MSD		MS	Lot-Sample #:	D8G110160-003
	112 N	(74 - 109)			MCAWW 410.4		07/16/08	8198494
	107	(74 - 109)	3.0	(0-11)	MCAWW 410.4		07/16/08	8198494
			Dilution Factor:	1				
			Analysis Time..:	08:00				
Nitrate-Nitrite			WO#:	KRCEJ1AF-MS/KRCEJ1AG-MSD		MS	Lot-Sample #:	D8G100267-006
	108	(72 - 113)			MCAWW 353.2		07/21/08	8203414
	108	(72 - 113)	0.06	(0-17)	MCAWW 353.2		07/21/08	8203414
			Dilution Factor:	1				
			Analysis Time..:	09:00				
Total phosphorus			WO#:	KQ7L91AC-MS/KQ7L91AD-MSD		MS	Lot-Sample #:	D8G080286-007
	88 N	(90 - 110)			MCAWW 365.3		07/16/08	8198406
	96	(90 - 110)	4.5	(0-20)	MCAWW 365.3		07/16/08	8198406
			Dilution Factor:	1				
			Analysis Time..:	13:50				
Total Kjeldahl Nitrogen			WO#:	KRL091A0-MS/KRL091A1-MSD		MS	Lot-Sample #:	D8G160270-007
	94	(54 - 131)			MCAWW 351.2		07/16-07/17/08	8199402
	97	(54 - 131)	3.0	(0-38)	MCAWW 351.2		07/16-07/17/08	8199402
			Dilution Factor:	1				
			Analysis Time..:	10:00				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #....: D8G140189

Matrix.....: WATER

Date Sampled....: 07/08/08 13:34 **Date Received..:** 07/08/08

PARAMETER	SAMPLE	SPIKE	MEASRD	PERCNT			METHOD	PREPARATION-	PREP
	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD		ANALYSIS DATE	BATCH #
Ammonia as N									
			WO#:	KRJW81AF-MS/KRJW81AG-MSD	MS	Lot-Sample	#:	D8G150238-002	
ND	4.00	3.31	N mg/L	83			MCAWW	350.1	07/21/08 8203407
ND	4.00	3.30	N mg/L	82	0.18		MCAWW	350.1	07/21/08 8203407
			Dilution Factor:	1					
			Analysis Time..:	09:00					
Chemical Oxygen Demand (COD)									
21	50.0	76.8	N mg/L	112			MCAWW	410.4	07/16/08 8198494
21	50.0	74.5	mg/L	107	3.0		MCAWW	410.4	07/16/08 8198494
			Dilution Factor:	1					
			Analysis Time..:	08:00					
Nitrate-Nitrite									
0.049	4.00	4.35	mg/L	108			MCAWW	353.2	07/21/08 8203414
0.049	4.00	4.36	mg/L	108	0.06		MCAWW	353.2	07/21/08 8203414
			Dilution Factor:	1					
			Analysis Time..:	09:00					
Total phosphorus									
0.44	0.500	0.876	N mg/L	88			MCAWW	365.3	07/16/08 8198406
0.44	0.500	0.916	mg/L	96	4.5		MCAWW	365.3	07/16/08 8198406
			Dilution Factor:	1					
			Analysis Time..:	13:50					
Total Kjeldahl Nitrogen									
0.83	3.00	3.64	mg/L	94			MCAWW	351.2	07/16-07/17/08 8199402
0.83	3.00	3.75	mg/L	97	3.0		MCAWW	351.2	07/16-07/17/08 8199402
			Dilution Factor:	1					
			Analysis Time..:	10:00					

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: D8G140189 **Work Order #...:** KRD4R-SMP **Matrix.....:** WATER

KRD4R-DUP

Date Sampled...: 07/10/08 12:09 **Date Received..:** 07/11/08

PARAM	RESULT	DUPLICATE	UNITS	RPD	LIMIT	METHOD	PREPARATION-	PREP
		RESULT					ANALYSIS DATE		BATCH #
Total Suspended Solids						SD Lot-Sample #:	D8G110191-012	
	38	44	mg/L	14	(0-20)	SM18 2540 D	07/15/08	8198092
			Dilution Factor:	1		Analysis Time..:	11:50	

**Chain of
Custody Record**

TAJ-4124-280 (1007)

Sampler ID _____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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WMH002922

FIELD INFORMATION FORM



Site Name:	W6SL			
Site No.:				Sam Poin W6

This Waste Management Field Information Form is Required

This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO		PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOL PURGED		
Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.									
PURGE/SAMPLE EQUIPMENT	Purging and Sampling Equipment ... Dedicated:			<input checked="" type="checkbox"/> Y or <input type="checkbox"/> N	Filter Device:	<input checked="" type="checkbox"/> Y or <input type="checkbox"/> N	0.45 μ or <input type="checkbox"/> μ (circle or fill in)		
	Purging Device	A- Submersible Pump	D-Bailer		Filter Type:	<input type="checkbox"/>	A-In-line Disposable C-Vacuum		
	Sampling Device	B-Peristaltic Pump	E-Piston Pump			<input type="checkbox"/>	B-Pressure X-Other		
	X-Other:	C-QED Bladder Pump	F-Dipper/Bottle		Sample Tube Type:	<input type="checkbox"/>	A-Teflon C-PVC X-Other:		
WELL DATA	Well Elevation (at TOC)	Depth to Water (DTW) (from TOC)			Groundwater Elevation (site datum, from TOC)				
	Total Well Depth (from TOC)	Stick Up (from ground elevation)			Casing ID (in)	Casing Material			
	Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.								
STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (μ hos/cm @ 25 °C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)
	.....	.....	1 st	.....	.....	.....	.....	.....	.....
	.....	.....	2 nd	.....	.....	.....	.....	.....	.....
	.....	.....	3 rd	.....	.....	.....	.....	.....	.....
	.....	.....	4 th	.....	.....	.....	.....	.....	.....

Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2		+/- 3%		--		+/- 10%	
Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.									
FIELD DATA	SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (μ hos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: Units	
	070908	6.48	254	25.4	254	254	254	254	
Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).									
FIELD COMMENTS	Sample Appearance:	Muddy	Odor:	None	Color:	D. Brown	Other:		
	Weather Conditions (required daily, or as conditions change):	Wind: N	Direction/Speed:	W 10 mph	Outlook:	Rain	Precipitation: <input checked="" type="checkbox"/> Y or <input type="checkbox"/> N		
	Specific Comments (including purge/well volume calculations if required):	Calm							
<p>Rain started at appx 1145; discharge began at appx 1250.</p> <p>Collected PH and flow measurements from west discharge pipe at 1300.</p> <p>Collected sample W GSL-DB01W @ 1305</p>									
I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):									
07.09.08 P.J. - Plaza 1st fl 111-1									

I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):

07.09.08

Pete LaPlaca

let Glaser

Earth Tech

Date _____

Name _____

Signature

Company